

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of April 19, 2005 has been received and contents carefully reviewed.

By this Amendment, Applicants amend claims 1, 6, 10, 15 and 20, and cancel claim 7 without prejudice or disclaimer. Accordingly, claims 1-6 and 8-21 are currently pending in the present application. Reexamination and reconsideration of the application are respectfully requested.

In the Office Action, the Examiner rejected claims 1, 3, 4 and 21 under 35 U.S.C. § 102(e) as being anticipated by Shimada et al. (U.S. Patent No. 5,877,830); rejected claims 15-17 under 35 U.S.C. § 102(a) as being anticipated by Hanazawa et al. (U.S. Patent. No. 5,953,088); rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Shimada et al. in view of Kobayashi et al. (U.S. Patent. No. 5,847,792); rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Shimada et al. in view of den Boer et al. (U.S. Patent. No. 5,641,974); rejected claims 6, 8, 9 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Jung (U.S. Patent No. 6,300,987) in view of Yoshino (U.S. Patent. No. 5,358,810); rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Jung in view of Yoshino in view of Shimada et al.; and rejected claim 10-12, 14 and 20 as being unpatentable over Hanazawa et al. in view of Murade (U.S. Patent. No. 6,388,721). Applicants respectfully traverse these rejections.

The rejection of claims 1, 3, 4 and 21 under 35 U.S.C. § 102(e) as being anticipated by Shimada et al. is respectfully traversed and reconsideration is requested.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, “each pixel comprising... a black matrix, a color filter and a common electrode on a second transparent substrate, the black matrix partially and asymmetrically overlapping the data line ...” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention.

Applicants respectfully submit that “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference.” According to claim 1, *each pixel* includes a black matrix partially and asymmetrically

overlapping the data line. [emphasis added] However, the black matrix layer 13 in Shimada et al. “is provided only on an area of the substrate 12a corresponding to the area outside of the display area 30.” See Shimada et al. at Col. 5 line 65 through Col. 6, line 2. Accordingly, Applicants respectfully submit that claim 1, and claims 3, 4 and 21, which depend therefrom, are allowable over the cited references. In addition, claims 2 and 5 are also allowable in that neither Kobayashi et al. nor den Boer et al. cures the deficient teaching of Shimada et al.

The rejection of claims 15-17 under 35 U.S.C. § 102(a) as being anticipated by Hanazawa et al. is respectfully traversed and reconsideration is requested.

Claim 15 is allowable over the cited references in that claim 15 recites a combination of elements including, for example, “wherein... an overlap length between the edge portion of the cut-off film and the edge portion of the data line is substantially the same as an overlap length between the pixel electrode and the data line.” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 15, and claims 16-17, which depend therefrom, are allowable over the cited references.

The rejection of claims 6, 8, 9 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Jung in view of Yoshino and the rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Jung in view of Yoshino in view of Shimada et al. are respectfully traversed and reconsideration is requested.

Claim 6 is allowable over the cited references in that claim 6 recites a combination of elements including, for example, “an overlap width between the first data line and the pixel electrode is between 2μm and 4μm... and an overlap width between the pixel electrode and the second data line is less than 2μm.” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 6, and claims 8-9 and 19, which depend therefrom, are allowable over the cited references.

On page 9 of the Office Action, the Examiner states, “Shimada discloses that the overlap width of the pixel electrode 11 and the data line 8 is about 1 micrometer or more to perform a

display without crosstalk,” and concludes “it would have been obvious ... to further modify the LCD of Jung with the teaching of Shimada...” Applicants respectfully disagree.

The background section of the present application discloses, “the light leakage problem does exist if the overlap area between the data line and the pixel electrode is under $1.5\mu\text{m}$...” See the present application at page 6, lines 10-15. Accordingly, an overlap width between one of the data lines and the pixel electrode is between $2\mu\text{m}$ and $4\mu\text{m}$, which is greater than $1.5\mu\text{m}$ to prevent a light leakage, in the second embodiment of the present invention. Thus, Applicants respectfully submit that the Examiner’s citation of Shimada et al. fails to teach or suggest the aforementioned feature recited in claim 6 and does not provide motivation for one of ordinary skill to combine the cited references and arrive at the claimed invention with any reasonable expectation of success.

The rejection of claim 10-12, 14 and 20 as being unpatentable over Hanazawa et al. in view of Murade is respectfully traversed and reconsideration is requested.

Claim 10 is allowable over the cited references in that claim 10 recites a combination of elements including, for example, “wherein a cut-off film is formed under the data line, an edge portion of the cut-off film is overlapped by an edge portion of the data line, and an overlap length between the edge portion of the cut-off film and the edge portion of the data line is substantially the same as an overlap length between the pixel electrode and the data line.” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 10, and claims 11-14, which depend therefrom, are allowable over the cited references.

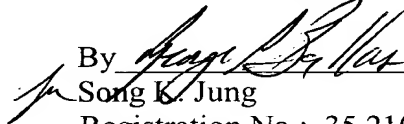
Claim 20 is allowable over the cited references in that claim 20 recites a combination of elements including, for example, “a cut-off film under the data line, wherein an edge portion of the cut-off film is overlapped by an edge portion of the data line, and an overlap length between the edge portion of the cut-off film and the edge portion of the data line is substantially the same as an overlap length between the pixel electrode and the data line” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 20 is allowable over the cited references.

Applicants believe the application is in condition for allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number (202) 496-7500. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Dated: July 19, 2005

Respectfully submitted,

By  18# 52587
Song K. Jung

Registration No.: 35,210
MCKENNA LONG & ALDRIDGE LLP
1900 K Street, N.W.
Washington, DC 20006
(202) 496-7500
Attorney for Applicant